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10/529,271

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Gunther Brandenburg

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EXAMINER

MARINI, MATTHEW G

ART UNIT

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2854

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/529,271 | Applicant(s) BRANDENBURG ET AL. | |
| | Examiner MATTHEW G. MARINI | Art Unit 2854 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 22, 2008 has been entered.

Claim Objections

Claim 18 is objected to because of the following informalities: it appears that in line 5 the word "method" should be replaced with --apparatus--. Appropriate correction is required.

Drawings

The drawings are objected to because where only a single view is used in an application to illustrate the claimed invention, it must not be numbered and the abbreviation "Fig." must not appear according to 37 CFR 1.84(u)(1).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

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number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: "Fig. 1" should not appear in the specification. When referring to a single drawing, the phrase "The figure" must be used.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-15, 17-20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Billet (EP 1 044 915).

As to Claim 12, Billet teaches in Fig. 1 structure capable of performing a method for controlling a cut register, 56, of a web-fed rotary press, 12, the cut register, 56, representing placement of cuts on a web, in between images, Fig. 3, comprising: guiding a web, 16, leaving a last printing press, 12, in which indicia has been printed thereon, to a cross-cutting device, 48, via at least two pulling units, 20 and 40, with adjustable leads, via motors, 22 and 42, wherein the pulling units are independently rotatable from one another and from the cross-cutting device, 48, as seen in Fig. 1; and changing a circumferential speed by controlling the motor, 42, of at least one of the pulling units, 40, to adjust the cut register, paragraphs 38-41.

As to Claim 13, Billet teaches in Fig. 1 the method where the step of changing includes: detecting a first actual^{1a} value of the cut register using a first cut-register sensor, 54; feeding the detected first actual value of the cut register to a controller, 28; comparing, by the controller, 28, the detected actual value of the cut register, from sensor 54, of the cut register, 56, with a cut-register set point value representing a predetermined desired placement of a cut on the web, paragraph 41, lines 4-11; adjusting, by the controller, 28, a motor, 42, of said at least one pulling unit, 40, to change the circumferential speed, paragraph 41.

As to Claim 14, Billet teaches in Fig. 1 the method further including: providing a second cut-register sensor, 36, positioned at a second pulling unit, 20, upstream of said at least one pulling unit, 40; detecting a second actual value of the cut register via

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pulses created as the web is fed, paragraph 29, using the second cut-register sensor, 36; deriving a differentiating proportion from the first and second actual values of the cut register, using equation seen in paragraph 47; and is capable of applying, by the controller, 28, feedforward control based on the differentiating proportion, paragraphs, 46-47.

As to claim 15, Billet teaches in Fig. 1, the method further including: determining an actual state of the cut register using a reference table based on a mathematical model, paragraph 49, where the mathematic model, discussed in paragraph, 49, uses the length of the web in the buffer; deriving a differentiating proportion from the actual state of the cut register through comparison of a calculated count from encoder, 36; and depending on the result, is capable of applying, by the controller, 28, feedforward control based on the differentiating proportion to correct the cut register of the web, 16, without the need of measuring, cut registers, 56, paragraph, 49.

As to Claim 18, Billet teaches in Fig. 1, an apparatus for controlling a cut register, 56, of a web-fed rotary press, 12, having a web, 16, guided from a last printing unit, 12, to a cross cutting device, 48, via a plurality of pulling units, 20 and 40, wherein the pulling units are independently rotatable from one another and from the cross-cutting device, 48, the cut register, 56, representing the placement of cuts on the web, 16, between images on the web, 16, comprising: a controller, 28, connected to a motor, 42, of at least one of the pulling units, 40; and a first cut-register sensor, 54, disposed to detect a first actual value of the cut register, 56, and feed the detected first actual value to the controller, 28, wherein the controller, 28, controls the motor, 42, to adjust a speed

of said at least one pulling unit, 40, based on the first actual value of the cut register, 56, as read in paragraph 41.

As to Claim 19, Billet teaches in Fig. 1, an apparatus further including a second cut-register sensor, 36, connected to the controller, 28, and disposed at a second pulling unit, 20, upstream of said at least one pulling unit, 40, the second cut-register sensor, 36, detecting a second actual value, pulses created by the movement of the web, 16, correlating to the cut register, 56, printed on the web, 16, and feeding the second actual value to the controller, 28, as seen in Fig. 1, the controller, 28, is capable of applying feedforward control based on the second actual value in the equation in paragraph 47, and as read in paragraphs 46 and 47.

As to claim 20, Billet teaches in Fig. 1, the apparatus further including: a computing unit, indirectly taught in paragraph, 41, connected to the controller, 28, the computing unit, calculating an actual state of the cut register based on a mathematical model using a reference table, paragraph, 49, where the mathematic model, uses the length of the web in the buffer, Lb; the controller, 28, receiving the calculated actual state from the computing unit and compares it to a calculated count from encoder, 36, and depending on the result of Lb and its comparison, the control, 28, is capable of applying, feedforward control based on the differentiating proportion to correct the cut register of the web, 16, without the need of measuring, cut registers, 56, paragraph, 49.

As to claims 17 and 22, Billet teaches in Fig. 1, the apparatus and method wherein the controller, 28, is capable of controlling said at least one pulling unit, 40, to compensate for a counteracting effect by forces of the web, 16, on a torque of the

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motor, 42, of said at least one pulling unit, 40. Because there is no structure further defining how these elements compensated for counteracting forces on the web, the listed elements above of Billet are therefore capable of performing the functional language recited in claim 22.

Claims 12, 13, 16, 18, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Smithe et al. (5,480,085).

As to Claim 12, Smithe et al. teaches in Fig. 4 structure capable of performing a method for controlling a cut register, 60, capable of coming from a web-fed rotary press, the cut register, 60, representing placement of cuts on a web, 12, comprising: guiding a web, 12, capable of coming from a last printing press in which indicia has been printed thereon, to a cross-cutting device, 22, via at least two pulling units, 68 and 70 and 18 and 20, with adjustable leads, via motors, 72 and 46, wherein the pulling units, 68 and 70 and 18 and 20, are independently rotatable from one another and from the cross-cutting device, 22, as seen in Fig. 4; and changing a circumferential speed by controlling the motor, 72, of at least one of the pulling units, 68 and 70, to adjust the cut register.

As to Claim 13, Smithe et al. teaches in Fig. 4 the method where the step of changing includes: detecting^{1a} a first actual value of the cut register, 60, using a first cut-register sensor, 62; feeding the detected first actual value of the cut register, 60, to a controller, 50; comparing, by the controller, 50, the detected actual value of the cut register, 60, from sensor 62, of the cut register, 60, with a cut-register set point value

representing a predetermined desired placement of a cut on the web, based on a linear feed rate, Col. 8 lines 23-33; adjusting, by the controller, 50, a motor, 42, of said at least one pulling unit, 68 and 70, to change the circumferential speed.

As to Claim 16, Smithe et al. teaches in Fig. 4 the method further including: supplying by the controller, 50, to a second pulling unit, 18 and 20, downstream of said at least one pulling unit a second setpoint value for controlling a lead of the second pulling unit, 18 and 20, Col. 9 lines 21-25.

As to Claim 18, Smithe et al. teaches in Fig. 4, an apparatus capable of controlling a cut register, 60, a web-fed rotary press having a web, 12, guided from a last printing unit to a cross cutting device, 22, via a plurality of pulling units, 68 and 70 and 18 and 20, wherein the pulling units, 68 and 70 and 18 and 20, are independently rotatable from one another and from the cross-cutting device, 22, the cut register, 60, representing the placement of cuts on the web, 12, comprising: a controller, 50, connected to a motor, 72, of at least one of the pulling units, 68 and 70; and a first cut-register sensor, 62, disposed to detect a first actual value of the cut register, 60, and feed the detected first actual value to the controller, 50, wherein the controller, 50, controls the motor, 72, to adjust a speed of said at least one pulling unit, 68 and 70, based on the first actual value of the cut register, 60.

As to Claim 18, Smithe et al. teaches in Fig. 4, an apparatus wherein the controller, 50, is further connected to a motor, 46, of a second pulling unit, 18 and 20, downstream of said at least one pulling unit, 68 and 70, and provides to the second pulling, 18 and 20, unit a setpoint value representing a predetermined desired

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placement of a cut on the web, 12, for controlling a lead of the second pulling unit, 18 and 20, Col. 9 lines 21-25.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW G. MARINI whose telephone number is (571)272-2676. The examiner can normally be reached on Monday-Friday 8:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew Marini

5/24/08

/Leslie J. Evanisko/

Primary Examiner, Art Unit 2854